Hip Pinning

A New, Rapid and Accurate Method

GEORGE E. REY, M.D., Porterville

Use of fixation with nails or pins to hold bone fragments together is one of the great improvements that has been developed in the past 20 years for dealing with fractures of the hip. There are many kinds of fixation apparatus, almost all with merit, but there has not been much improvement in methods of introduction of the pins or nails. Making drill-holes in the right direction and proper introduction of the pins is often difficult and necessitates multiple radiographs during the procedure. Sometimes these difficulties greatly extend the time the patient has to be kept in anesthesia.

In 1946 I devised an instrument (Figure 1) for directing the guide-pin, and I have used it since then in all patients who have been in my care and often in placing guide-pins for other physicians. In no case was the pin ever out of line in any direction. When this instrument is used, the only x-ray film

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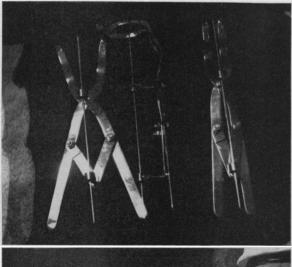




Figure 1.—Photograph of device for placing guide-pins in the femur in procedures for fixation of fractures of the hip. Size of device can be judged from inset showing it held in surgeon's hand.

taken during the operation is to make sure the pin is the right length. If careful measurements are taken and the necessary length can be definitely ascertained before operation roentgenograms during the procedure may be dispensed with. It was never necessary in any of the cases to change the position of the guide-pin once it was placed. Figure 2 is an x-ray film taken in a case in which the instrument was used.

METHOD

After accurate reduction of the fracture, the blades of the guiding device are separated and applied about the neck of the femur, one at a time, through a small incision in the anterior surface of the capsule. The blades are then locked, the pin inserted through the guide holes, as shown, and drilled to the depth previously determined. With this method, the guide pin must always hit the center of the neck of the femur, regardless of the size of the bone. At this point an x-ray film is made for exact determination of depth of penetration. The nail is then driven over the guide-pin in the usual manner.

603 North Hockett Street, Porterville.

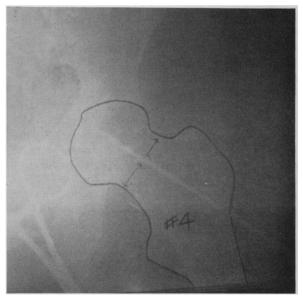


Figure 2.—Placement of pin in an intertrochanteric fracture in a 73-year-old woman. This was the only x-ray film made during operation.